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APPL PARTS	Non-Patent Literature	CTRS
	OATH	EXIN
MIS	Oath or Declaration PET	E miner Interview
nternal Misc. Paper LET		M903
Misc. Incoming Letter	RETIMAIL	DO/EO Acceptance M905
9/12	Mail Returned by USPS SEQLIST	DO/EO Missing Requirement
PCT Papers in a 371 Application	SEQLIS I	NFDR
^	Sequence Listing SPEC	Formal Drawing Required
Amendment Including Elections  ABST	Gootion	. NOA
	SPEUNO	Notice of Allowance
Abstract ADS	Specification Not in English	PETDEC
Application Data Sheet	TRNA	Petition Decision
∧►/L)	Transmittal New Application	
Affidavit or Exhibit Received  APPENDIX		INCOMING
	OUTGOING	
AppendixARTIFACT	00100110	AP.B
Artifact	U 1 NI	Appeal Brief  C.AD
BIB	Misc. Office Action 1449	of Address
Bib Data Sheet	Signed 1449	N/AP
CLM	Signed 1443 892	Notice of Appeal
COMPUTER	202	PA Change in Power of Attorney
Computer Program Listing	ABN	DEM.
CRFL	Abandonment	Applicant Remarks in Amendment
All CRF Papers for Backfile	APDEC	
DIST	Board of Appeals Decision  APEA	
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- DKW	CIAV	-
→ FOR	Count Advisory Action	
	CIEU	- Maranar
FRPR	Count Ex parte Quayle CTFR	File Wrapper
Foreign Priority Papers  IDS	Count Final Rejection	
IDS Including 1449	Country	FWCLM
Foreign Reference FRPR Foreign Priority Papers IDS IDS Including 1449	ECBOX	File Wrapper Claim
	Evidence Copy Box Identification	
Internal	WCLIVI _	l File Wrannel 15500
SRNT	Marksheet	SRFW
- Search Notes	WHEE -	File Wrapper Search Info
	Fee Worksheet	
PTO Prepared Complete Claim	Joe	

·	A and the sale of the	Applicant(c)		
	Application No.	Applicant(s)		
Office Action Comments	09/696,872	ROTHMAN, JAMES E.		
. Office Action Summary	Examiner	Art Unit		
The MAN INC DATE of this comment of the same	Sheridan L. Swope	1652		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet v	viui tile correspondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status	36(a). In no event, however, may a within the statutory minimum of th fill apply and will expire SIX (6) MO cause the application to become A	reply be timely filed irty (30) days will be considered timely. NTHS from the mailing date of this communication. IBANDONED (35 U.S.C. § 133).		
1) Responsive to communication(s) filed on 24 F	ehruary 2003			
	s action is non-final.			
3) Since this application is in condition for allowa		atters, prosecution as to the merits is		
closed in accordance with the practice under lands Disposition of Claims				
4) Claim(s) 20-26,28-35,37 and 44-75 is/are pend	ding in the application.			
4a) Of the above claim(s) is/are withdraw	n from consideration.			
5) Claim(s) is/are allowed.				
6)☐ Claim(s) is/are rejected.				
7) Claim(s) is/are objected to.				
8) Claim(s) 20-26, 28-35, 37, and 44-75 are subjection.	ct to restriction and/or el	ection requirement.		
Application Papers				
9) The specification is objected to by the Examiner		Ah a Fugasinas		
10) The drawing(s) filed on is/are: a) accep	•			
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.				
If approved, corrected drawings are required in reply to this Office action.				
12) The oath or declaration is objected to by the Exa	•			
Priority under 35 U.S.C. §§ 119 and 120				
13) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C.	§ 119(a)-(d) or (f).		
a) ☐ All b) ☐ Some * c) ☐ None of:				
1. Certified copies of the priority documents have been received.				
2. Certified copies of the priority documents have been received in Application No				
<ol> <li>Copies of the certified copies of the priori application from the International Bur</li> </ol>	ity documents have beer eau (PCT Rule 17.2(a)).	n received in this National Stage		
* See the attached detailed Office action for a list of	·			
14) Acknowledgment is made of a claim for domestic	•			
<ul> <li>a) ☐ The translation of the foreign language provention</li> <li>15)☐ Acknowledgment is made of a claim for domestic</li> </ul>				
Attachment(s)				
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) D Notice of	Summary (PTO-413) Paper No(s) Informal Patent Application (PTO-152)		

Application/Control Number: 09/696,872 Page 2

Art Unit: 1652

## **DETAILED ACTION**

Applicant's response, on February 24, 2003, Paper No. 11, to the first Office Action on the Merits of this case is acknowledged. It is acknowledged that applicants have cancelled Claims 27 and 36, amended Claims 20-26, 28-35, and 37, and added Claims 44-75. Claims 20-26, 28-35, 37 and 44-75 are pending.

## Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 20-26, 28, 44, 46, 48, 50-56, 72, and 74 drawn to methods for increasing the secretion of a protein by a cell, classified in class 435, subclass 7.2.
- II. Claims 29, in part, 30-35, 37, 45, 47, 49, 57, 59-71, 73, and 75, drawn to a method for promoting the release of a heat shock protein/antigenic peptide complex from a cell, classified in class 424, subclass 278.1.
- III. Claims 29, in part, and 58, drawn to a method for promoting the release of a heat shock protein/antigenic peptide complex from a cell including introducing a nucleic acid encoding the heat shock protein, classified in class 424, subclass 278.1.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). Also, product and process inventions are distinct if any of the following can be shown: (1) that the process as claimed can be used to make another and materially different product, (2) that the product claimed can be used in a materially different process of using that product, or (3) that the product claimed can be made by another and

Application/Control Number: 09/696,872

Art Unit: 1652

materially different process (MPEP § 806.05(h)). These inventions are different or distinct for

the following reasons.

The methods of Inventions I and II are independent as they produce different results. The

methods of Inventions I and III are independent as, they produce different results. The methods

of Invention II and Inventions III are independent because they comprise different steps and

utilize different products.

This application contains claims directed to the following patentably distinct species of

the claimed invention:

Claims 23-26, 28, 44 and 46 as well as 32-35, 37, and 45 include the following species of

oligomerization domain:

Pentamerization domain,

Trimerization domain,

Derived from a cartilage matrix protein,

Derived from phospholamban,

Derived from thrombospondin,

TSP3,

TSP4,

SEQ ID NO: 1,

SEQ ID NO: 2,

SEQ ID NO: 7,

SEQ ID NO: 3,

SEQ ID NO: 4,

Page 3

Application/Control Number: 09/696,872

Art Unit: 1652

SEQ ID NO: 5, and

SEQ ID NO: 6.

These species of Claims 23-26, 28, and 44, and 46 as well as 32-35, 37, and 45 are patentably distinct because they are physically and functionally distinct chemical entities.

Claims 48 and 49 as well as 75 and 75 include the following species of KDELr inhibitor protein:

SEQ ID NO: 13 or the protein encoded by SEQ ID NO: 14,

SEQ ID NO: 15 or the protein encoded by SEQ ID NO: 16,

SEQ ID NO: 17 or the protein encoded by SEQ ID NO: 18,

SEQ ID NO: 19 or the protein encoded by SEQ ID NO: 20,

SEQ ID NO: 21 or the protein encoded by SEQ ID NO: 22,

SEQ ID NO: 23 or the protein encoded by SEQ ID NO: 24,

SEQ ID NO: 25 or the protein encoded by SEQ ID NO: 26,

SEQ ID NO: 27 or the protein encoded by SEQ ID NO: 28,

SEQ ID NO: 29 or the protein encoded by SEQ ID NO: 30, and

SEQ ID NO: 34 or the protein encoded by SEQ ID NO: 35.

These species of Claims 48 and 49 as well as 75 and 75 are patentably distinct because they are physically and functionally distinct chemical entities.

Claims 50-53, 56 as well as 57 and 59 includes the following species of methods for expressing the protein in a cell:

Naturally occurring,

Expressed as a result of introduction of a nucleic acid,

Application/Control Number: 09/696,872 Page 5

Art Unit: 1652

Introducing a nucleic acid molecule encoding the protein, and

Introducing the protein into the cell using microvesicles.

These species of Claims 50-53, 56 as well as 57 and 59 are patentably distinct because they are methods that utilize different products, use different steps, and/or produce different results.

Claims 54 and 55 as well as 60 and 61 include the following species of moiety conjugated to the KDElr inhibitor:

Sugar,

Folate,

Insulin,

Transferrin,

PEG, and

Antigenic peptide.

These species of Claims 54 and 55 as well as 60 and 61 are patentably distinct because they are physically and functionally distinct chemical entities.

Claims 62-71 include the following species of cancer, infective agent, or oncogeneassociated protein to be released with the KDELr inhibitor:

Sarcoma,

Lymphoma,

Leukemia,

Melanoma,

Breast cancer,

Application/Control Number: 09/696,872 Art Unit: 1652
Prostate cancer
Ovarian cancer,
Cervical cancer,
Uterine cancer,
Colon cancer,
Lung cancer,
Glioblastoma,
Astrocytoma,
Virus,
Protozoan,
Mycoplasma,
Fungus,
Yeast,
Parasite,
Prion,
Papilloma,
Herpes,
Retrovirus,
Hepititus,
Influenza,
Rhinovirus,

Respiratory synctia virus,

Application/Control Number: 09/696,872 Art Unit: 1652	
Cytomegalovirus	
Adenovirus,	
HIV1,	
HIV2,	
Salmonella,	
Staphylococcus,	
Streptococcus,	
Enterococcus,	
Clostridium,	
Escherichia,	
Klebsiella,	
Vibrio,	
Mycobacterium,	
Tumor suppressor gene,	
Defective p53,	
Oncogene,	
Ras,	
Src,	
Erb,	
Fos,	
Abl, and	

myc.

Art Unit: 1652

These species of Claims 62-71 are patentably distinct because they are physically and functionally distinct chemical entities.

Claims 72 as well as 73 include the following species of sequences at the carboxy-terminus of the KDELr inhibitor: X-Asp-Glu-Leu where X is:

Lys,

His, and

Asp.

These species of Claims 72 and 73 are patentably distinct because they are physically and functionally distinct chemical entities.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art due to their recognized divergent subject matter, as shown by their different classification, restriction for examination purposes as indicated is proper.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species of oligomerization domain, KDELr inhibitor protein, method for expressing the protein, conjugated moiety, cancer, infective agent, or oncogene-associated protein to be released, and carboxy-terminus of the KDELr inhibitor, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Thus, applicant is required to elect one of Inventions I, II, and III <u>and</u> one species within each category described above. Currently, Claims 20, 21, 23, 24, 25, 26, 29, 30, 32, 33, 35, 54, 55, 58, 60-75 are generic.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after

Art Unit: 1652

the election, applicant must indicate which are readable upon the elected species. MPEP §

809.02(a).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the

inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 CFR

1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sheridan L. Swope whose telephone number is 703-305-1696.

The examiner can normally be reached on M-F; 9:30-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ponnathapura Achutamurthy can be reached on 703-308-3804. The fax phone

numbers for the organization where this application or proceeding is assigned are 703-305-3014

for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-308-0196.

Sheridan Lee Swope, Ph.D.

Kelewa Root

Page 9